Converting standard TV programming from a production studio to a residence requires several steps (a through h).

**Figure 3**

- **(a)**: Digitize → MPEG-2 → Transport Stream → Multiplexer → Transport Stream
- **(b)**: Reed-Solomon (Outer FEC) → Energy Scramble → Interleaver → Viterbi (Inner FEC)
- **(c)**: EVEN ODD → 1111 → DAC (BPSK) → QPSK
- **(d)**: QPSK → Upconvert (L Band) → Upconvert (Ku Band) → Amplify and Uplink → Satellite Uplink
- **(e)**: Amplify and Downlink → Satellite Downlink → Downconvert (L Band) → COAX (RG-6) to Satellite Receiver → Downconvert to QPSK at Satellite Receiver
- **(f)**: ADC → 0000 → QPSK → 01010101
- **(g)**: Viterbi (Inner FEC) → Deinterleaver → Energy Descramble → Reed-Solomon (Outer FEC) → Transport Stream
- **(h)**: De-multiplexer → MPEG-2 Decode → AV Channel